Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

Interpretation of SARS-CoV-2 PCR results for the diagnosis of COVID-19 ☆

Dear Editor,

We carefully read the comments [1] on our study [2]. The fact that our paper had such an impact (more than 2,500 citations in Google Scholar) testifies that it met an important expectation. In order to be able to give an element of reflection for COVID-19 therapeutics, we have chosen as endpoint the viral clearance assessed by PCR in the nasopharynx. Indeed, this marker has become necessary for the management of bacterial and viral infections, as in the cases of HIV infection or hepatitis C. Chinese authors reported in March 2020 that the median duration of viral carriage in the nasopharynx was 20 days and that the longest carriage lasted 37 days [3]. Hence, we initially submitted a project that included the analysis of a single arm, using hydroxychloroquine (HCQ), to determine if we could have a shortening of the duration of viral carriage in our patients compared to this Chinese work. Fortunately, we had to test and follow up patients who had been hospitalized in other centers and who did not receive this treatment, which allowed comparison. The results were interpreted by the laboratories that performed the tests. In our laboratory, PCR were determined to be positive in case of Ct values lower than 35, which we were able to confirm in the largest study published to date that compared culture and PCR [4]. Since then, we have performed >250,000 PCRs in our laboratory, diagnosed >13,000 people, and the efficacy of HCQ on viral carriage, which was the only element we reported in our seminal article, has been confirmed in a larger set of patients by our team [5] as well as by others [6]. Studies and meta-analyses are consistent regarding the fact that this treatment shortens the duration of viral carriage. Finally, the importance of this preliminary paper was underlined by the fact that numerous international publications have now been produced on HCQ that evaluated its effect, either on virus disappearance or on death. In total, it is important to keep in mind that during emerging epidemics with unknown viruses, preliminary data are essential to allow the choice of therapeutic strategies when no treatment has been validated. The need for information in real-time in such context is also illustrated by the burst of pre-print publications during this SARS-CoV-2 pandemic.

Declaration of Competing Interest

The authors declare no competing interests.

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Ethical approval

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